## REMARKS

This application has been carefully reviewed in light of the final Office Action dated March 3, 2009. Claims 20 to 23 are pending in the application. Claims 20 and 22 are the independent claims. Reconsideration and further examination are respectfully requested.

Claims 20 and 21 were rejected under 35 U.S.C. § 101 for being directed to non-statutory subject matter. In particular, the Office Action contends that the apparatus of Claim 20 can be interpreted as merely software. However, Claim 20 is directed to an apparatus, not a program, and the specification clearly recites that "the present invention can be applied to an apparatus comprising a single device or to [a] system constituted by a plurality of devices". Specification, page 20. Nevertheless, and without conceding the correctness of the rejection, Claim 20 has been amended to include a memory. Withdrawal of the § 101 rejection is respectfully requested.

Claims 20 to 23 were rejected under 35 U.S.C. § 103(a) over U.S. Publication No. 2004/0243648 (Hidaka), U.S. Publication No. 2002/0012453 (Hashimoto) and U.S. Publication No. 2004/0083260 (Kobayashi). Reconsideration and withdrawal of this rejection are respectfully requested.

Independent Claims 20 and 22 generally concern processing image data for respective pages. A page data management unit creates a page management record for each of respective pages scanned by an image reader.

According to aspects of Claims 20 and 22, a first type of page data including RAW image data representing a page is generated, and a second type of page data is

generated by encoding the RAW image data. Memory addresses of the first type of page data and the second type of page data are written to the page management record.

By virtue of this arrangement, in which a single page management record manages multiple formats of page data, it is ordinarily possible to reduce the amount of memory occupied by page management records. Conventionally, separate page management records are generated and stored for each format of each page, as shown in Applicants' Figures 2A to 2C.

Referring specifically to claim language, independent Claim 20 is directed to a data processing apparatus for output-processing image data for respective pages. The apparatus includes a memory for storing page management records and page data. The apparatus also includes a page data management unit constructed to perform a management process for each of respective pages scanned by an image reader. The management process includes creating a page management record and storing the page management record in the memory, wherein the page management record corresponds to the respective page scanned by the image reader. The management process further includes generating a first type of page data and a second type of page data and storing the first and second types of page data in the memory. The first type of page data includes RAW image data representing the respective page and the second type of page data includes image data generated by encoding the RAW image data included in the first type of page data. In addition, the management process includes writing a memory address of the first type of page data and a memory address of the second type of page data to the page management record, and managing respective output processes by a first output unit and a second output unit referring to the created page management record. The management process further

includes deleting the first type of page data from the page management record in response to completion of the references by both the first and second output units to the first type of page data. The apparatus also includes a control unit constructed to perform a control process for each of the respective pages scanned by the image reader. The control process includes monitoring completion of storing the first type of page data scanned by the image reader in the memory, encoding the RAW image data included in the first type of page data in response to the completion of storing, and determining whether or not image data resulting from encoding the RAW image data exists. If the resultant image data does not exist, the control unit controls the first output unit to output the RAW image data. If the resultant image data does exist, the control unit decodes the resultant image data into RAW image data, and controls the first output unit to output the decoded RAW image data. If the second output unit is not referring to the RAW image data of which the first output unit completes an output, the control unit deletes the RAW image data of which the first output unit completes the output.

Independent Claim 22 is directed to a method substantially in accordance with the apparatus of Claim 20.

The applied art is not seen to disclose or suggest the features of Claims 20 and 22, and in particular is not seen to disclose or suggest at least the feature of a page management record including memory addresses of a first type of page data including RAW image data representing a page and a second type of page data including image data generated by encoding the RAW image data.

As understood by Applicants, Hidaka is directed to storing image data gathered by a scanner portion. A client terminal requests a copy server to send

management information of image files on a hard disc, and a control portion reads out file management information and sends it to the client terminal. See Hidaka, Abstract.

Page 3 of the Office Action asserts that Hidaka (paragraphs [0181], [0246], [0270], [0289], [0297] and [0493]) discloses creating page management records corresponding to respective pages of RAW image data from plural pages scanned by an image reader, generating a first type of page data for one page of RAW image data, and generating a second type of page data by encoding the one page of the RAW image data.

The cited portions of Hidaka simply disclose that scanned data may be converted to a TIFF file format, and that a JPEG thumbnail image may be generated to represent the data of the page. See Hidaka, Figure 39 and paragraphs [0270] to [0278] and [0493]. Offsets to the TIFF data and the JPEG thumbnail image may then be stored in a TIFF file. See Hidaka, paragraphs [0289] and [0297].

However, Hidaka's JPEG thumbnail image is not seen to correspond to the claimed second type of page data, for the reason that Hidaka's thumbnail image is not generated by encoding the TIFF data. Accordingly, Hidaka is not seen to disclose or suggest a second type of page data including image data generated by encoding RAW image data, much less a page management record including memory addresses of a first type of page data including RAW image data representing a page and a second type of page data including image data generated by encoding the RAW image data.

Page 3 of the Office Action also refers to Hidaka performing JPEG compression of scanned data. See Hidaka, paragraph [0246]. Nevertheless, Hidaka is not seen to suggest a single page management record managing both of the scan data and the compressed JPEG data.

Hashimoto and Kobayashi have been reviewed and are not seen to remedy the shortcomings of Hidaka.

Therefore, independent Claims 20 and 22 are believed to be in condition for allowance, and such action is respectfully requested.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect, however, the individual consideration of each on its own merits is respectfully requested.

Turning to a formal matter, Applicants respectfully request that the next Office communication indicate the Examiner's consideration of the documents cited in the Information Disclosure Statement dated April 1, 2009.

No other matters being raised, the entire application is believed to be in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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